

Patient information factsheet

Pulmonary function testing

We have given you this factsheet to explain what will happen at your pulmonary function testing appointment. We hope it will help to answer some of the questions you may have.

Pulmonary function testing measures how well your lungs move air in and out, how fast they do this, their size and how well oxygen is absorbed into the blood.

Pulmonary function testing includes several different tests. The tests you have will depend on your symptoms, diagnosis, medication and your doctor's recommendations. The tests usually take from 30 minutes up to 90 minutes.

Spirometry

The spirometry test looks at the volume you are able to exhale (breathe out) and the speed at which you can exhale.

You will be asked to breathe gently into the spirometer and then to take a large, deep breath in and blow out as hard as you can for as long as you can until there is nothing left in your lungs.

The respiratory physiologist looking after you will explain the test procedure at each stage. This test usually takes about fifteen minutes.

Lung volume measurement

The lung volume measurement test looks at the overall size of your lungs and the volume of air that remains once you have exhaled as much as you can.

Regardless of how hard you try, there is always a bit of air left in your lungs. The volume of this can give us valuable information on how well your lungs are working and may indicate the best way to treat you.

The usual method involves using a large transparent box called a 'body plethysmograph'. For the test, you will need to sit inside the box. We will ask you to wear nose clips and breathe through a mouthpiece. If you are unable to sit comfortably within the box, or are claustrophobic, please tell the respiratory physiologist looking after you.

There is also an alternative method called a 'nitrogen washout'. For this method you will need to wear a noseclip. We will ask you to breathe in and out through a mouthpiece, with some normal breaths, some deeper breaths in and some breaths all the way out.

The respiratory physiologist looking after you will explain the test procedure. This test usually takes about fifteen minutes.

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Gas transfer test

The gas transfer test looks at how well the air that you breathe into your lungs travels to your blood. As in the previous two tests, we will ask you to breathe through a mouthpiece. The respiratory physiologist looking after you will explain the test procedure. This test also takes about fifteen minutes.

Before your testing appointment.

To get the best possible results, please do not:

- smoke or vape for 24 hours before the test.
- drink any alcohol for at least four hours before the test.
- do any heavy exercise for at least 15 minutes before the test.
- have any large meals before the test (a sandwich is fine).
- wear tight or restricting clothing on the day of the test.

In some cases we may need to postpone your testing.

Please telephone us on 023 8120 1360 if you have:

- a chest infection
- had eye, chest or abdominal surgery in the last six weeks
- taken antibiotics for your chest in the four weeks before your test

Risks

Pulmonary function tests are very safe and there are rarely any issues after testing. Before the test, the respiratory physiologist will discuss the procedure with you and go through any queries or concerns that you may have.

Contact us

If you have any questions or worries, please contact us on telephone: **023 8120 1360**

Useful links

www.nhs.uk/conditions/spirometry/

For a translation of this document, or a version in another format such as easy read, large print, Braille or audio, please telephone **023 8120 4688**.

For help preparing for your visit, arranging an interpreter or accessing the hospital, please visit **www.uhs.nhs.uk/additionalneeds**